ಕರ್ನಾಟಕ ವಿಧಾನ ಪರಿಷತ್ತು

ಚುಕ್ಕೆ ಗುರುತಿಲ್ಲದ ಪ್ರಶ್ನೆ ಸಂಖ್ಯೆ : **1651**

ಸದಸ್ಯರ ಹೆಸರು : ಶ್ರೀ ಕೆ.ಎ. ತಿಪ್ಪೇಸ್ವಾಮಿ (ನಾಮನಿರ್ದೇಶನ ಹೊಂದಿದವರು)

ಉತ್ತರಿಸಬೇಕಾದ ದಿನಾಂಕ : *14-03-2022*

ಉತ್ತರಿಸುವ ಸಚಿವರು : ಮಾನ್ಯ ಇಂಧನ ಹಾಗೂ ಕನ್ನಡ ಮತ್ತು ಸಂಸ್ಕೃತಿ ಸಚಿವರು

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	ಪ್ರಶ್ನೆ	ಉತ್ತರ
ಅ)	ರಾಜ್ಯದಲ್ಲಿ ಕೇಂದ್ರ ಮತ್ತು ರಾಜ್ಯ ಸರ್ಕಾರ ಪುರಸ್ಕೃತ ಯೋಜನೆಯಡಿ ಹಳ್ಳಿಗಳಿಗೆ ಸೌರಶಕ್ತಿ ಮುಖೇನ ವಿದ್ಯುತ್ ಒದಗಿಸಲಾಗುತ್ತಿದೆಯೇ; (ಹಾಗಿದ್ದಲ್ಲಿ ವಿವರ ನೀಡುವುದು)	ಚಾಮುಂಡೇಶ್ವರಿ ವಿದ್ಯುತ್ ಸರಬರಾಜು ನಿಗಮ ನಿಯಮಿತ ವ್ಯಾಪ್ತಿಯ ಗುಡ್ಡಗಾಡು/ ಅರಣ್ಯ ಪ್ರದೇಶ/ ತಾಂಡಾ/ ಹ್ಯಾಮ್ಲೆಟ್/ ಹಾಡಿಗಳು ಮುಂತಾದ ಪ್ರದೇಶಗಳಲ್ಲಿ ಸಾಂಪ್ರದಾಯಿಕ ಮೂಲಕ ವಿದ್ಯುತ್ ಸಂಪರ್ಕ ಕಲ್ಪಿಸಲು ಸಾಧ್ಯವಿಲ್ಲದ ಸ್ಥಳಗಳಲ್ಲಿ ಸೋಲಾರ್ ಮುಖಾಂತರ 3427 ಸಂಖ್ಯೆ ಮನೆಗಳಿಗೆ ಕೇಂದ್ರ ಸರ್ಕಾರದ ಮಾರ್ಗಸೂಚಿಯನ್ವಯ ಡಿ.ಡಿ.ಜಿ (Decentralized Distribution Generation) ಯೋಜನೆಯಡಿ ವಿದ್ಯುತ್ ಸಂಪರ್ಕ ಒದಗಿಸಲಾಗಿದೆ. ಸದರಿ ಯೋಜನೆಯನ್ನು ಮೆ|| ನವ್ಯ ಟೆಕ್ನೋಲಜಿಸ್, ಮುಂಬಯಿ ಮತ್ತು ಮೆ|| ದೀಪಾ ಸೋಲಾರ್ ಸಿಸ್ಟಮ್ ಪ್ರೈ. ಲಿ., ಬೆಂಗಳೂರು ರವರಿಗೆ ವರ್ಕ್ ಅವಾರ್ಡ್ ನೀಡಲಾಗಿದ್ದು, ಯೋಜನೆಯ ಕಾಮಗಾರಿಗಳು 2021 ರಲ್ಲಿ ಪೂರ್ಣಗೊಂಡಿರುತ್ತವೆ. ಮಂಗಳೂರು ವಿದ್ಯುತ್ ಸರಬರಾಜು ಕಂಪನಿ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ಸಾಂಪ್ರದಾಯಿಕ ಮೂಲಗಳಿಂದ ವಿದ್ಯುದೀಕರಣಗೊಳಿಸಲು ಸಾಧ್ಯವಾಗಿರದ 3 ಗ್ರಾಮಗಳಾದ ಶೆಟ್ಟಿಹಳ್ಳಿ, ಚಿತ್ರಶೆಟ್ಟಿಹಳ್ಳಿ ಮತ್ತು ಉರುಳುಗಲ್ಲು ಗ್ರಾಮಗಳನ್ನು ಕೇಂದ್ರ ಸರ್ಕಾರದ ಡಿಡಿಜಿ (ವಿಕೇಂದ್ರಿಕೃತ ವಿದ್ಯುತ್ ಉತ್ಪಾದನೆ ಮತ್ತು ವಿತರಣೆ) ಯೋಜನೆಯ ಸೋಲಾರ್ ಸ್ಟ್ಯಾಂಡ್ ಅಲೋನ್ ಸಿಸ್ಟಂ ಮುಖಾಂತರ *(148 ಮನೆ/ ಸ್ಥಾವರಗಳಿಗೆ)* 2017 ರಲ್ಲಿ ವಿದ್ಯುದೀಕರಣಗೊಳಿಸಲಾಗಿದೆ. ಹಾಗೂ ಕೇಂದ್ರ ಸರಕಾರದ ಸೌಭಾಗ್ಯ (ಆಫ್ ಗ್ರಿಡ್) ಯೋಜನೆಯಡಿ ಒಟ್ಟು 207 ಮನೆಗಳಿಗೆ ಸೋಲಾರ್ ಸ್ಟ್ಯಾಂಡ್ ಅಲೋನ್ ಸಿಸ್ಟಂನಲ್ಲಿ 2019 ರಲ್ಲಿ ವಿದ್ಯುತ್ ಸಂಪರ್ಕ ನೀಡಲಾಗಿದೆ. ಸದರಿ ಯೋಜನೆಯನ್ನು ಮೆ|| ದೀಪಾ ಸೋಲಾರ್ ಸಿಸ್ಟಮ್ ಪ್ರೈ. ಲಿ., ಬೆಂಗಳೂರು (ಡಿ.ಡಿ.ಜಿ) ಹಾಗೂ ಪವರ್ ಎಡ್ಜ್, ಬೆಂಗಳೂರು(ಸೌಭಾಗ್ಯ) ರವರಿಗೆ ವರ್ಕ್ ಅವಾರ್ಡ್ ನೀಡಲಾಗಿದ್ದು, ಯೋಜನೆಯ ಕಾಮಗಾರಿಗಳು ಪೂರ್ಣಗೊಂಡಿರುತ್ತವೆ. ಹುಬ್ಬಳ್ಳಿ ವಿದ್ಯುತ್ ಸರಬರಾಜು ಕಂಪನಿ ವತಿಯಿಂದ ಬೆಳಗಾವಿ ಜಿಲ್ಲೆಯ ಖಾನಾಪೂರ ತಾಲೂಕಿನ "ಭೀಮಗಡ ಅಭಯಾರಣ್ಯ" ದಲ್ಲಿರುವ ತಳೇವಾಡಿ, ಮೆಂಡಿಲ್, ಹೋಲ್ಡಾ, ಕೃಷ್ಣಾಪೂರ (ಕೆಲಿಲ್) ಗ್ರಾಮಗಳ ಒಟ್ಟು 81 ಮನೆಗಳಿಗೆ ಕೇಂದ್ರ ಪುರಸ್ಕೃತ ಡಿಡಿಯುಜಿಜೆವೈ (ದೀನ ದಯಾಳ್ ಗ್ರಾಮ ಜ್ಯೋತಿ ಯೋಜನೆ) ಯೋಜನೆಯಡಿಯಲ್ಲಿ ಸೋಲಾರ್ ಮೈಕ್ರೋ ಗ್ರಿಡ್‌ಗಳನ್ನು ಅಳವಡಿಸಿ ವಿದ್ಯುತ್ ಪೂರೈಸಲಾಗುತ್ತಿದ್ದು, ಮೆ. ಪ್ರಥಮ ಇಂಟಗ್ರೇಟೆಡ್ ಇಂಜಿನಿಯರಿಂಗ್ ಸೊಲ್ಯುಶನ್ಸ್ ಪ್ರೈ. ಲಿ., ಬೆಂಗಳೂರು ರವರು ಕಾಮಗಾರಿಯನ್ನು 2017 ರಲ್ಲಿ ಪೂರ್ಣಗೊಳಿಸಿರುತ್ತಾರೆ.
ಆ)	ರಾಜ್ಯದಲ್ಲಿ ಸದರಿ ಯೋಜನೆಯಡಿ ಯಾವ ಸರ್ಕಾರಿ ಸಂಸ್ಥೆ ಅಥವಾ ಖಾಸಗಿ ಸಂಸ್ಥೆ ಮುಖೇನ ಈ ಯೋಜನೆಯನ್ನು ಅನುಷ್ಠಾನಗೊಳಿಸಲಾಗುತ್ತಿದೆ; (ಈ ಯೋಜನೆಯ ರೂಪು-ರೇಷೆಯನ್ನೊಳಗೊಂಡಂತೆ ಪೂರ್ಣ ವಿವರವನ್ನು ನೀಡುವುದು)	

		ಗುಲ್ಬರ್ಗಾ ವಿದ್ಯುತ್ ಸರಬರಾಜು ಕಂಪನಿಯಿಂದ Decentralised Distributed Generation (DDG) under RGGVY 12th Plan ಯೋಜನೆಯಡಿ ಚಿಂಚೋಳಿ ತಾಲ್ಲೂಕಿನ ಶೇರಿ ಬೀಕನಳ್ಳಿ ಗ್ರಾಮದಲ್ಲಿ 40 ಮನೆಗಳಿಗೆ ಸೌರಶಕ್ತಿ Off Grid ಮುಖೇನ ವಿದ್ಯುತ್ ಒದಗಿಸಲಾಗಿದೆ. ಸದರಿ ಯೋಜನೆಯನ್ನು ಮೆ|| ಎನ್ ಜೆನ್ ಸಲೂಷನ್ಸ್ ಬೆಂಗಳೂರು ಸಂಸ್ಥೆ ಮುಖೇನ ಅನುಷ್ಠಾನಗೊಳಿಸಲಾಗಿದೆ. ಯೋಜನೆಯ ಕಾಮಗಾರಿಗಳು 2016 ರಲ್ಲಿ ಪೂರ್ಣಗೊಂಡಿರುತ್ತವೆ. ಡಿ.ಡಿ.ಜಿ ಯೋಜನೆಯ ರೂಪು-ರೇಷೆಗಳನ್ನು ಅನುಬಂಧ ದಲ್ಲಿ ಒದಗಿಸಲಾಗಿದೆ.
ಇ)	ರಾಜ್ಯದಲ್ಲಿ ಈ ಯೋಜನೆಯು ಫಲಶ್ರುತಿಯನ್ನು ಕಂಡರೆ ಸದರಿ ವ್ಯವಸ್ಥೆಯನ್ನು ರಾಜ್ಯಾದ್ಯಂತ ವಿಸ್ತರಿಸಲಾಗುವುದೇ? (ಪೂರ್ಣ ವಿವರ ನೀಡುವುದು)	ಸಾಂಪ್ರದಾಯಿಕ ವಿದ್ಯುತ್ ಸಂಪರ್ಕ ಕಲ್ಪಿಸಲು ಸಾಧ್ಯವಿಲ್ಲದ ಸ್ಥಳಗಳಲ್ಲಿ ಸೋಲಾರ್ ಮುಖಾಂತರ ಮನೆಗಳಿಗೆ ಕೇಂದ್ರ ಸರ್ಕಾರದ ಮಾರ್ಗಸೂಚಿಯನ್ವಯ ಡಿ.ಡಿ.ಜಿ (Decentralized Distribution Generation) ಯೋಜನೆಯಡಿ ಜೆಸ್ಕಾಂ, ಮೆಸ್ಕಾಂ ಮತ್ತು ಸೆಸ್ಕ್ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ವಿದ್ಯುತ್ ಸಂಪರ್ಕ ಕಲ್ಪಿಸಲಾಗಿರುತ್ತದೆ ಹಾಗೂ ಹೆಸ್ಕಾಂ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ಡಿಡಿಯುಜಿಜೆವೈ (ದೀನ ದಯಾಳ್ ಗ್ರಾಮ ಜ್ಯೋತಿ ಯೋಜನೆ) ಯೋಜನೆಯಡಿಯಲ್ಲಿ ಸೋಲಾರ್ ಮೈಕ್ರೋ ಗ್ರಿಡ್‌ಗಳನ್ನು ಅಳವಡಿಸಿ ವಿದ್ಯುತ್ ಸಂಪರ್ಕ ಕಲ್ಪಿಸಲಾಗಿರುತ್ತದೆ. ರಾಜ್ಯದ ಉಳಿದ ಎಲ್ಲಾ ಹಳ್ಳಿಗಳಿಗೆ ಈಗಾಗಲೇ ಸಾಂಪ್ರದಾಯಕ ವಿದ್ಯುತ್ ಸಂಪರ್ಕ ಕಲ್ಪಿಸಲಾಗಿದೆ.

ಸಂಖ್ಯೆ: ಎನರ್ಜಿ 30 ಇಬಿಎಸ್ 2022

(ವಿ ಸುನಿಲ್ ಕುಮಾರ್)
ಇಂಧನ ಹಾಗೂ ಕನ್ನಡ ಮತ್ತು
ಸಂಸ್ಕೃತಿ ಸಚಿವರು

ವಿಧಾನ ಪರಿಷತ್ತಿನ ಮಾನ್ಯ ಸದಸ್ಯರಾದ ಶ್ರೀ. [illegible] ರವರ
ಚುಕ್ಕೆ ಗುರುತಿಲ್ಲದ ಪ್ರಶ್ನೆ ಸಂಖ್ಯೆ 1651ಕ್ಕೆ ಅನುಬಂಧ.

No.44/1/2007-RE
Government of India
Ministry of Power

Shram Shakti Bhawan,
Rafi Marg, New Delhi- 110001
Dated the 12th January, 2009

Order

Subject : Guidelines for Village Electrification through Decentralized Distributed Generation (DDG) under Rajiv Gandhi Grameen Vidyutikaran Yojana in the XI Plan – Scheme of Rural Electricity Infrastructure and Household Electrification

1.0 Guidelines for Decentralized Distributed Generation (DDG) under Rajiv Gandhi Grameen Vidyutikaran Yojana in the XI Plan – Scheme of Rural Electricity Infrastructure and Household Electrification, for attaining the goal of providing access to electricity to all households, electrification of about 1.15 lakh un-electrified villages and electricity connections to 2.34 crore BPL households by 2009. The approval has been accorded for capital subsidy of Rs.540 crore for DDG during XI Plan period which is included in capital subsidy of Rs. 28000 crore available for RGGVY in XI Plan period. This is in continuation of Order No. File 44/37/07-D(RE) dated the 6th February, 2008.

2.0 Ministry of Power, Government of India launched Rajiv Gandhi Grameen Vidyutikaran Yojana in 2005 vide OM No.44/19/2004–D(RE) dated 18.03.2005. The scheme was continued further in 11th Plan vide OM No.44/37/07-D(RE) dated 6.2.2008. As per OM dated 6.2.2008 there is a provision of subsidy of Rs.540 crore for Decentralized Distributed Generation (DDG) under RGGVY.

3.0 Decentralized Distributed Generation can be from conventional or renewable sources such as Biomass, Biofuels, Biogas, Mini Hydro, Solar etc. for villages where grid connectivity is either not feasible or not cost effective.

4.0 Rural Electrification Corporation (REC) would be the Nodal Agency for the scheme. The capital subsidy for eligible projects under the scheme

would be given through REC. In the event, the projects are not implemented satisfactorily in accordance with the conditionalities of this order, the capital subsidy would be converted into interest bearing loans.

5.0 The DDG projects would be owned by State Government. Implementing agencies of the projects shall be either the State Renewable Energy Development Agencies (SREDAs) / departments promoting renewable energy or State Utilities or the identified CPSUs. The State Governments will decide the implementing agency for their respective states.

6.0 The projects under the scheme will be subject to Quality Monitoring Mechanism. The details of 3 Tier quality control mechanism is enclosed as **Annexure-1.**

7.0 <u>SERVICE CHARGES /FEES</u>

i) The state Implementing Agencies and Central Public Sector Undertakings who are paid service charges @ 8% and 9% respectively of the project cost as charges for implementing the scheme and also for meeting additional expenditure on compulsory third party monitoring at the first tier of the quality control mechanism shall concur to pass on the Service Charges (to the extent required) to the Project Developer towards meeting the cost of providing power for a period of 5 years.

ii) REC will be given 1% of the project cost as fee for establishing frameworks for implementation, meeting the scheme related expenditure, appraisal and evaluation both at pre-award and post-award stage, monitoring, and complete supervision of the programme from concept to completion of the scheme and for quality control of projects at second tier (REC Quality Monitors) of the Quality Control Mechanism..

iii) For supporting activities and quality monitoring at third tier (National Quality Monitors) to be undertaken by Ministry of Power, a provision of 1% of the outlay would be kept. The supporting activities would be in the nature of capacity building, awareness and other administrative and associated expenses, franchisee development and undertaking of pilot studies and projects complementary to the Rural Electrification Scheme.

8.0 MONITORING COMMITTEE

Monitoring Committee constituted by Ministry of Power under the Chairmanship of Secretary (Power), Government of India will sanction the projects, including revised costs estimates, monitor and review the implementation of the scheme in addition to issuing necessary guidelines from time to time for effective implementation of the scheme.

9.0 The Services of Central Public Sector Undertakings (CPSUs) have been offered to the States for assisting them in the execution of Rural Electrification Projects as per their willingness and requirement. With a view to augment the implementation capacities for the programmes, REC has entered into Memorandum of Undertaking (MOUs) with NTPC, Power Grid, NHPC and DVC to make available CPSUs programme management expertise and capabilities to States wishing to use the services. This has been operationalised through a suitable Tripartite/Quadripartite Agreement.

10.0 IDENTIFICATION OF VILLAGES / HAMLETS

10.1 While implementing the DDG projects it has to be ensured that (i) the effort and investment that goes into setting up of DDGs are utilized for the benefit of the target groups and do not become sunk investment once the village is being connected to the grid and (ii) there is sufficient engagement and support of the local community for this initiative.

10.2 For the selection of villages, the following approach should be followed:

i) The list of villages / hamlets to be electrified through DDG is to be finalized by the State Renewable Energy Development Agency / departments promoting renewable energy in consultation with state utilities and MNRE.

ii) To the extent possible, the selection of the villages / hamlets is to be carried out in a cluster to take advantage of the clustering effect, wherever applicable. Depending on the proximity of the villages / hamlets, the merit of setting up a local distribution grid covering all these villages / hamlets with a central power plant as against setting up of individual village / hamlet level systems would be evaluated.

iii) Villages / hamlets that comprise of migratory/floating population may not be considered.

iv) While finalizing the list, the villages / hamlets are to be prioritized and those villages where grid connectivity is not foreseen in next 5 to 7 years must be taken up first for setting up DDG projects.

v) Villages / hamlets having population of less than 100 shall not be considered under the DDG Scheme and to be taken up by MNRE for implementation. Villages / hamlets that are already being planned to be taken up by MNRE are to be excluded under the DDG scheme.

vi) Villages / hamlets that have been provided with solar home lighting systems under the Remote Village Electrification program can also be considered under the DDG scheme.

vii) Infrastructure for these projects is to be established in a manner so that they are grid compatible. This would ensure quick interface when grid power reaches the village and ensure that the investments made today are not sunk when the village is finally connected to the grid.

11.0 SELECTION OF TECHNOLOGY

The DDG projects could be based on either conventional or renewable forms of energy. The choice of technology would depend on the appropriateness of the chosen technology for specific villages / hamlets. Since the DDG projects to be implemented are to be scalable and undertaken within a relatively stiff timeline, options being considered for the proposed guidelines are those that have either reached a stage of commercial maturity or their technical viability is proven under actual field conditions. A list of such options is presented below:

- Diesel Generating sets powered by biofuels (non-edible vegetable oils like Jatropha, Pongamia etc)
- Diesel Generating sets powered by producer gas generated through biomass gasification (100 % producer gas engines)[1]
- Solar Photo Voltaic
- Small Hydro

It may be noted that the above list is based on the technologies that are presently being employed and are the preferred options for

[1] To be considered only where project design includes dedicated energy plantations to ensure sustainable biomass supply.

decentralized power generation. There could be additional possibilities as listed below, which are not popular now, but may become relevant in future.

- Diesel Generating sets powered by biogas (from animal waste)
- Wind hybrid systems
- Other hybrid options, including any new technology

Although diesel is the most convenient form of decentralized power generation option, it would be advisable to treat the diesel option as only for standby or under situations where there is temporary disruption in the supply of local renewable energy sources.

Annexure-2 provides a technology decision tool that can be taken as a guide while selecting the most appropriate technological choice for any particular village / hamlet. **It is emphasized that this tool is only a suggestive one and the actual choice of technology has to be based on a detailed survey of the village/hamlet.**

Annexure-3 provides a framework which forms the basis of arriving at the technology decision tool.
The preferred technology options and rating thereof are indicative in nature and at the time of sorting of DPRs for approval, details justification will have to be provided for selecting an option.

12.0 FINANCING OF PROJECTS AND ADMINISTERING OF FUNDS

12.1 The financial assistance for implementing the DDG projects would include the following project cost:

a) Capital cost*, comprising of:

- All plant equipment & auxiliary systems and accessories required for the power plant operation
- All associated civil works. Cost for land, however, has to be borne by the state government
- Distribution Network with necessary control equipment. The subsidy applicable to BPL Households under the RGGVY Programme shall also be applicable for DDG Projects. Access to electricity has to be provided for common facilities such as Street light, Schools, Community buildings Panchyat Bhawan etc.

- Initial capital cost for plantation for sustainable supply of bio energy (in case of biomass gasification/bio fuel projects only).
- Initial capital cost of setting up non-domestic loads as specified by the implementing agency.

* For clarification on items not specifically mentioned here the criteria as applied in Rule 79 of GFR, 2005 published by Government of India be relied upon.

b) Revenue Cost*:

Cost of spare parts for 5 years after commissioning. The cost of consumables and labour will not be included in the capitalized project cost.

c) Cost of providing power for a period of 5 years from commissioning as identified in DPR after taking into account recovery from village house holds as per the tariff to be decided by the State Utility/SREDA/Implementing Agency, but the same shall not be less than the existing tariff in the neighborhood area and shall be indicated in the bid document for identified load of each household.

d) Soft Cost comprising of:

- Pre-selection of villages, technologies and preparation of DPRs
- Cost of social engineering to ensure community engagement

e) Pattern of payment

90% of the total project cost (capital cost and soft cost) will be provided to the implementing agency as subsidy. The balance 10% can be arranged by the implementing agency at their own or taken as loan from any financial institution or REC. The following payment terms are recommended for the payment of capital cost to the project developer

- 70% of the capital cost excluding cost of providing power as stated above till commissioning of the project, linked to project completion milestones.
- Balance 30% of the capital cost excluding cost of providing power as stated above over the 5 year period (@ 6% per annum)
- Cost of providing power shall be paid on annual basis after taking into account recovery from village house holds.

e) Administration of funds

The payment to the project developers, as per the terms outlined above, will be routed through the implementing agencies.

13.0 PROJECT APPROVAL AND IMPLEMENTATION PROCEDURE

13.1 An Implementation Support Group (ISG) will be created by Ministry of Power to coordinate/supervise the Scheme implementation. The roles and responsibilities of ISG are detailed at **Annexure-4.**

13.2 The MoP will identify a panel of consultants to assist ISG/Implementing Agencies/CPSUs in terms of providing technical support, including pre-selection of technology and preparation of Detailed Project Reports (DPRs).

13.3 The implementing agency will finalize the prioritized list of villages/hamlets to be electrified through DDG and get the DPRs made through the panel of consultants.

13.4 Implementing Agencies shall submit the DPRs to ISG and identified CPSUs shall submit the DPRs to Implementing Agencies who shall forward DPRs to ISG. ISG will review the DPRs and forward the DPRs to the Monitoring Committee for approval. Indicative list of information to be covered in the DPR is enclosed as **Annexure-5.**

13.5 The Monitoring Committee would sanction the projects on merits

13.6 Thereafter, implementing agency shall invite open tender on Build, Operate, Maintain & Transfer (BOMT) basis and place award. Award

cost should not be more than 10% of the sanctioned cost. In case award cost is more than 10% of the sanctioned cost, the same shall require prior approval of Monitoring Committee.

13.7 The flow chart of the approval process is enclosed as **Annexure-6.**

14.0 INSTITUTIONAL FRAMEWORK AND FACILITATION SUPPORT

14.1 Implementing Agencies shall:

i) Assist in land acquisition and execution of the Scheme

ii) Help Project Developers in community mobilization and in creating awareness about DDGs and on the efficient and safe use of equipments.

15.0 ELIGIBLE PROJECT DEVELOPERS

Eligible Project developers shall be:

State agencies, technology suppliers, Corporate houses. Equipment Manufacturers and Contractors, Self Help Groups, Users Associations, individuals, Registered Societies, Cooperatives, Panchayats, Local bodies, their Consortiums / SPVs / JVs etc are all eligible to apply.

16.0 PROJECT APPRAISAL COMPONENTS

16.1 Selection of Project developer

i) The Project Developer shall implement the project on Build, Operate, Maintain & Transfer (BOMT) basis for a period of 5 years. The plant will be handed over to the State Government in working condition after 5 years. All the replaced parts will be handed over to the State Government.

ii) Consultant while preparing DPR, shall estimate the capacity of the project and shall also estimate the electricity load and energy required to be generated for five years from the date of commissioning. While computing the load, provision of 2 light points (11/18 W each) and one socket (40 W) may be considered for each household.

iii) Project Developer shall be responsible for collecting the tariff from villagers.

iv) Selection of the Project developer shall be on the basis of tenders which will be called by the Implementing agencies in two parts, one part covering capital cost (as per 12.1 (a) above) and another covering cost of providing power for five years (as per 12.1 (b) above). The reimbursement of gap between operation and maintenance cost and revenue recovery to the project developer (after adjusting the collected tariff) will be paid out of service charges of the Implementing Agencies (@ 8% for State Governments & 9% for CPSUs). The second part bid can not exceed the service charges mentioned above. Only those state governments which undertake to provide the service charges to the project developer will be eligible for taking up the DDG Projects. The tenders will be evaluated jointly for both the parts i.e. for the First part and the Second part taken together for 5 years. A tripartite agreement will be signed between SREDA/State Utility/State Energy Deptt. and REC on behalf of the Ministry of Power and the Project Developer for agreeing to the commitments and conditions of RGGVY-DDG sub component. This tripartite agreement will be approved by Ministry of Power. As part of agreement (a) the project developer will be authorized to collect tariff in project area and (b) the state government will agree to reimburse the gap between O&M expenditure and revenue income from out of the service charges of implementing agencies to the project developer.

16.2 Other components

i) The selected project developer shall give 10% Contract Performance Guarantee in the form of Bank Guarantee of the total project cost as per 12.1 (a) valid for a period of 2 years which is to be renewed till 5years plus 6 months from date of commissioning..

ii) The successful developer shall be responsible for supplying the required quantum of power for 6-8 hours of electricity per day at the identified timings as per the contract, at least for 25 days in a month, failing which, the developer shall pay Liquidated

Damages (LD) at the rate of the 10% of the charges for the short supplied power. This amount may be deducted from the yearly payments to the project developer.

iii) The project developer is responsible for providing training / capacity building to villagers for running the power plant.

iv) After 5 years, Implementing Agencies will have the option to take over the project or handover the project to the same agency or any other agency as approved by the State Government for running the project, either on negotiated rate basis or limited or open tender basis.

v) If grid power reaches the village before 5 years then the power produced from the DDG project can be exported to the grid and imported from the grid, as and when required.

vi) The Project Developer's will be permitted to mobilize additional support/funds from other sources for implementing the DDG projects.

vii) For sustainability of DDG projects, it is important to go beyond lighting and Consultants preparing DPRs shall also include some non-domestic / productive work that would help in the overall development of these villages.

viii) For DDG projects, a flat rate in terms of money to be paid / light point / month is a more practical way of setting the tariff than the classical sale of electricity/kWh. The concerned Implementing Agency will issue guidelines for electricity charges to the project developers.

17.0 MONITORING AND EVALUATION

i) It should be ensured that all the benefits intended by the project are rigorously monitored and a monthly report is submitted by the Implementing Agency to REC and MoP indicating the financial and physical progress of the project.

ii) The Implementing Agency shall also ensure proper utilization of the funds.

18.0 EARNING CARBON CREDITS FROM DDG PROJECTS

There are possibilities of earning carbon credits through the Clean Development Mechanism (CDM) route for renewable energy based DDG projects. These projects are eligible under both the regulatory and the voluntary markets.

Since the volume of Certified Emission Reductions (CERs) on a single village basis is low, It would be advisable to bundle several such projects and Implementing Agencies shall endeavor to obtain such benefits for further community benefit programmes.

19.0 Notwithstanding any thing mentioned in the guidelines some projects can be taken up for Implementation by CPSUs as per the recommendation of Implementing Supporting Group (ISG) & the Monitoring Committee after proper scrutiny.

20.0 The expenditure involved on above scheme would be debitable to the following Head under Grant No.72 – Ministry of Power for the year 2007-08 and corresponding head of account for the subsequent years:-

2801 Power (Major Head)
06 – Rural Electrification (Sub-Major Head)
06.800 – Other Expenditure (Minor Head)
03 – Rural Electrification Corporation – for Rajiv Gandhi Grameen Vidyutikaran Yojana
03.00.33 – Subsidies

21.0 This has been approved by Monitoring Committee on RGGVY in its meeting held on 23/12/2008.

(Devender Singh)
Joint Secretary to the Government of India

To

1. Chief Secretaries of all States.
2. Secretary (Power/Energy) of all States
3. Chairman of all State Utilities
4. Chairman & Managing Director, REC, SCOPE Complex, New Delhi.

Copy to:

1. Prime Minister's Office, South Block, New Delhi.
2. Cabinet Secretary, Cabinet Secretariat, Rastrapati Bhawan, New Delhi.
3. Ministry of Finance , Department of Expenditure (Plan Finance), New Delhi.
4. Chairman, Central Electricity authority, R.K. Puram, New Delhi.
5. Secretary Planning Commission, New Delhi.
6. Secretary, Ministry of Non-conventional Energy Sources, New Delhi.
7. Secretary, Ministry of Rural Development, Krishi Bhawan, New Delhi.
8. Secretary, Department of Panchayati Raj, New Delhi.
9. Secretary, Ministry of Programme Implementation, New Delhi.
10. Department of Development of North Eastern Region, New Delhi.
11. CMDs of NHPC, NTPC, POWERGRID, DVC.
12. PPS to Secretary (P)/Sr PPS to AS(AK)./PPS to AS(GBP).
13. All JSs/All Directors/DS in the Ministry of Power.

Annexure 1

A THREE TIER QUALITY CONTROL MECHANISM UNDER RGGVY

A. (a) First Tier

Project implementing agency (PIA) would be responsible for the first tier of the Quality Control Structure. Further PIA will engage third party inspection agency, whose responsibility will be to ensure that all the materials to be utilized and the workmanship conform to the prescribed specifications. It will be synchronized with phased release of funds under RGGVY and inspection and proof of corrective action will be mandatory requirement for release of funds. This inspection will cover approx. 50% villages on random sample basis for each project.

(b) Second Tier

Rural Electrification Corporation will get the inspection done of the works/materials from its non-field staff and by outsourcing it. REC may outsource it to retired employees of State Electricity Boards/State Utilities/ CPSUs. All such reports should be organized and analyzed by REC through the project implementation. These individuals would be designated as REC Quality Monitors (RQM).

The inspection will cover quality checks at pre-shipment stage at the vendors' outlet of major materials and 10% villages on random sample basis.

(c) Third Tier

1. Independent Evaluators (Individuals /Agency) will be engaged by the Ministry of Power for evaluation, at random, of supply and erection under the programme. These persons would be designated as National Quality Monitors (NQM). It will be the responsibility of the state to facilitate the inspection of works by the NQM, who shall be given free access to all administrative, technical and financial records. Evaluation will cover 1% villages. They shall also report on the general functioning of the Quality Control mechanism in the District.

2. The Monitors shall submit their report to the Ministry. The reports of the NQMs will be sent by REC to the RQM for appropriate action within a period to be specified. In case quality check by RQM or NQM reveals 'unsatisfactory' work, the implementing agency shall ensure that the contractor replace the material or rectifies the workmanship (as the case may be) within the time period stipulated. In respect of NQM Reports, the REC Quality Coordinator shall, each month, report on the action taken on each of the pending Reports. All works rated 'unsatisfactory' shall be re-inspected by RQM or NQM after a rectification report has been received from the REC Quality

Coordinator. REC will designate an Executive Director as in-charge of the Monitoring system.

3. Recurrent adverse reports about quality of works in a given District / State might entail suspension of the Programme in that area till the underlying causes of defective work have been addressed.

4. The REC Quality Coordinator / Third party inspection unit shall be the authority to receive and inquire into complaints / representations in respect of quality of works and they would be responsible for sending a reply after proper investigation to the complainant within 30 days. The REC for this purpose, shall ensure the following:-

(i) The name, address and other details of the REC Quality Coordinator / third party inspection unit will be given adequate publicity in the State (including tender notices, websites, etc.) as the authority empowered to receive complaints.

(ii) All complaints shall be acknowledged on receipt (giving registration no.) and likely date of reply shall be indicated. On receipt of the report, the complainant shall be informed of the outcome and the action taken / proposed.

(iii) Complaints received through the Ministry of Power, REC will normally be sent to the REC Quality Coordinator for enquiry and necessary action. In case report from an RQM is desired, this shall be furnished within the time specified. In case an adequate response is not received within the stated time schedule, the REC may depute an NQM and further processing will be done only on the basis of NQM report.

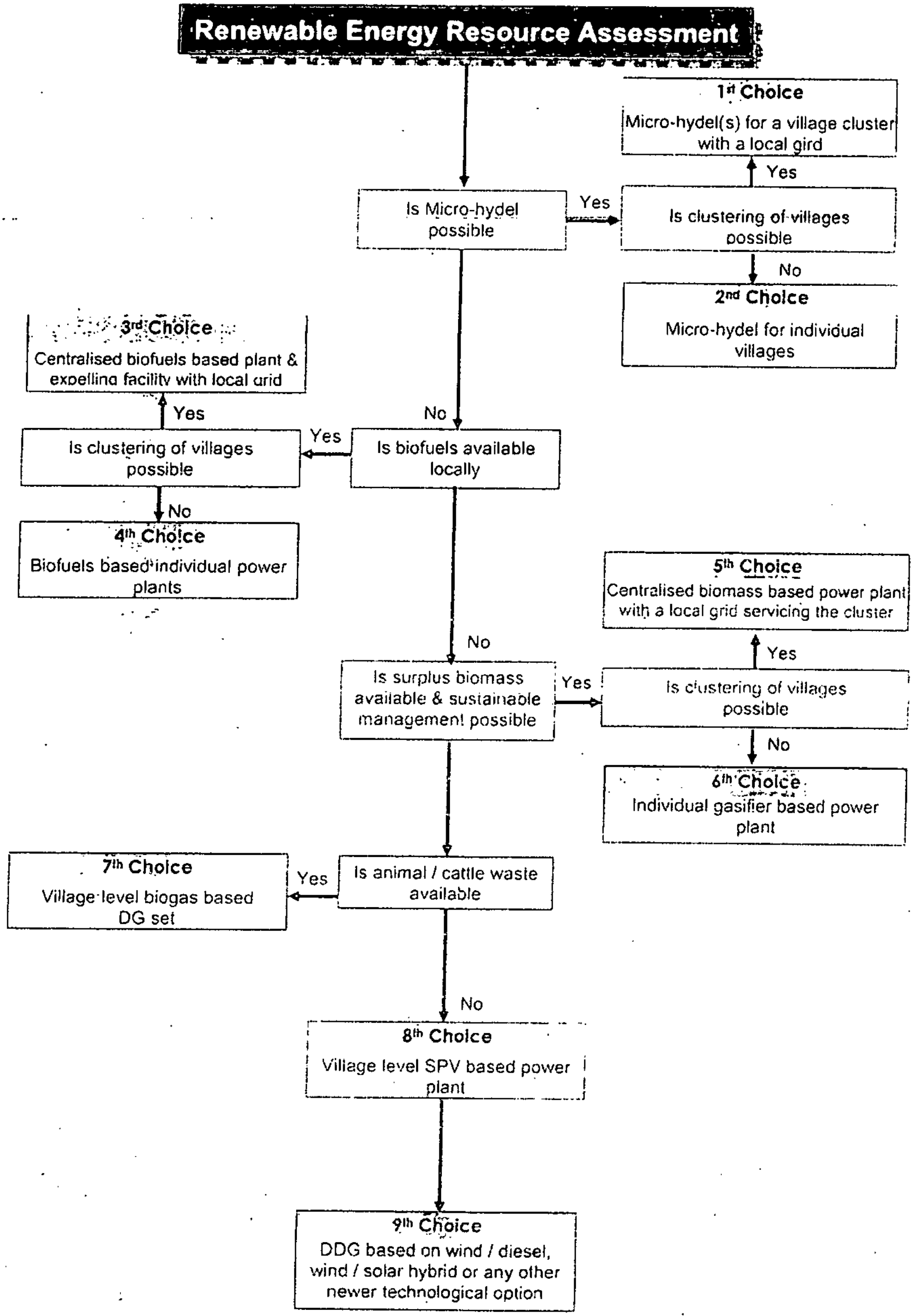
(iv) The RQC shall make a monthly report to the REC (in a prescribed format) and the status of action on complaints shall be discussed in the District Committees.

(v) REC could develop a web site for complaints, inspection and rectification.

Annexure 2

TECHNOLOGY DECISION TOOL

(Conventional DG sets will be an option in most cases)



Annexure 3

Framework for ranking various renewable energy based DDG options

Option	Score (In a scale of 1 to 5, please refer to the footnote for the scoring criteria)							Overall score	Ranking
	Capital cost (Rs. / kW) [1]		Generation cost (Rs. / kWh) [2]		Environmental impact [3]	Local [4] manageability & ease of operation	Enhancing [5] Livelihood opportunities		
	Rs/kW	Score	Rs/kWh	Score					
Biomass gasifier / DG sets	~ 78,000	3	2.25	4	2	2	4	15	3
SPV	~ 3,00,000	1	14.5	1	4	2	1	9	5
Biogas DG sets	~ 85,000	3	0.75	5	3	1	3	15	4
Biofuels DG sets	~ 20,000	5	10.75	2	3	3	5	18	2
Micro-hydel	~ 60,000	4	0.25	5	5	3	3	20	1

Note: Although the overall score for the biomass gasifier and biogas options are same, gasifier based systems are given a higher ranking as they are fairly established as a DDG technology, and at the present point of time, is a preferred option compared to biogas based engines. The above scoring matrix excludes options like wind/solar, wind/diesel hybrids or any other newer options as DDG systems based on such technologies are presently not operational, and there are no basis for comparing the effectiveness of such systems against the options listed above.

1 Capital cost is the cost of power generating unit. Scoring as per the following guidelines.

< Rs 25,000 – 5
Rs 25,000 – Rs 75,000 – 4
Rs 75,000 – Rs 100,000 – 3
Rs 100,000 – Rs 150,000 – 2
> Rs 200,000 – 1

2 Generation cost is the operation and maintenance cost of unit power generation. For SPV systems, it refers to the cost of replacement of battery bank every 4 years. For biofuels based plants, the cost of generation would be Rs 9.45/kWh if the sale of press cake is also accounted for. Scoring as per the following guidelines:

< Rs 1.5 – 5
Rs 1.5 – Rs 5 – 4
Rs 5 – Rs 7.5 – 3
Rs 7.5 – Rs 12.5 – 2
> Rs 12.5 – 1

3 Environmental impacts include local as well as global air pollution, afforestation / deforestation impacts, solid as well as liquid waste generation etc. Scoring as per the following guidelines:

Least polluting – 5
Most polluting – 1

4 Local manageability refers to the ability of maintaining / managing the equipment / systems in remote places and their serviceability. Scoring as per the following guidelines:

Most robust system – 5
Least robust system – 1

5 Enhancing livelihood opportunity refers to the ability of a particular technology to promote productive work as well as local employment generation. Scoring as per the following guidelines.

Maximum livelihood opportunity – 5
Least livelihood opportunity – 1

Annexure 4

ROLES AND RESPONSIBILITIES OF IMPLEMENTATION SUPPORT GROUP (ISG)

Support to funding agency and single window to project developers for all data / information support.

1. Identification of villages/ target project areas
2. Evolve guidelines and checklist for formulation of Feasibility Reports & Detailed Project Reports.
   - Contents of the Reports
   - Compliance to appraisal parameters.
   - Listing of clearances and requirements at each stage.
3. Evolve Guidelines and parameters for Project developers for
   - Project implementation support.
   - Project monitoring
   - Quality assurance
   - Capacity building
   - Project closure
   - Operation stage support
4. Support to REC
   - Techno Commercial appraisal.
   - Project monitoring
   - MIS support on scheme implementation.
   - Evolve guidelines and procedures for all steps in project implementation and operation.
   - Set quality benchmark parameters.
   - Provide monitoring benchmarks and check milestones.
5. Formulate detailed guidelines and check list for
   - Detailed Project Report acceptance (for Project approval)

   The steps and interfaces between ISG/ REC and Implementing Agency will be detailed through procedural guidelines.
6. Conduct Grant utilization audit
7. Maintain data repository on all aspects and deliverables of Scheme implementation.
8. Single Window to all Stakeholders
   - Data/ Information support.
   - Capacity building and awareness about new techniques and technologies.
   - Target Project areas identification.
9. Formulate guidelines for funding of application projects based upon New technologies.

Annexure 5

Information to be covered in Detailed Project Report
(The following is an indicative list)

- Name of Gram Panchayat, Block & District
- No. of Villages under Gram Panchayat
- Name of Village / hamlet selected for the Project
- Village census code
- Distance from nearest road-head
- Distance from the grid
- Total population of the village / hamlet
- Number of households
- Number of Hamlets / Dalit Bastis in Village
- Number of BPL Households
- Type of social structure
- Community buildings – school, public health centre, panchayat ghar, etc.
- Main occupation, indicating cash crops
- Resource availability – water stream, type of biomass, local fuel wood / oil-seed bearing species, if any
- Availability of fallow land / waste land / uncultivated land etc.
- Indicative Estimate of Energy Demand
  - Household –lighting, other
  - Community services, including streetlights
  - Irrigation/Agriculture Operations
  - Commercial
- Existing pattern of energy / fuel use and average monthly expenditure per household
- Existing renewable energy devices in the village, if any
- Technology package proposed to be deployed
- Indicative capacity of the energy systems
- Role of local community in planning, implementation and management, including revenue management
- Details of any local NGO already associated with the village / hamlet
- Any other village / hamlet in the vicinity of this village that is un-electrified

Annexure 6

DDG Scheme
– The Approval Process

Activities / Steps	Responsibility	Facilitated by
Identification of Villages / prioritization	Implementing Agency	DISCOM/MNRE
Preparation of DPR	Implementing Agency	Consultant
Review of DPRs and recommendation for approval	Implementation Support Group	
Approval of DPR	MOP	REC
Invitation of bids from Project Developers	Implementing Agency	
Shortlist / selection of project developers	Implementing Agency	
Award and implementation of project	Implementing Agency	